ABSTRACT OF THE DISCLOSURE

A system and method for diagnosing the possibility of disease in a body part is described. The system includes an electrode array containing a plurality of electrodes capable of being electrically coupled to the body part. A first measurement unit makes an electrode assessment measurement with the electrode array. An electrode assessment module determines whether the plurality of electrodes are suitably coupled to the body part based on the electrode assessment measurement. If there is suitable coupling, a second measurement unit makes a diagnosis measurement with the electrode array. An electrical property module obtains an electrical property of the body part, such as impedance, based on the diagnosis measurement. A diagnosis module diagnoses the possibility of disease based on the measured electrical property.